G.C.9375 335

OF THE OPENING OF RIVERS FOR NAVIGATION.

The Benefit exemplified,

By

The Two *AVONS*

Of

Salisbury and *Briſtol.*

WITH

A *Mediterranean* Paſſage by Water for BILLANDERS of Thirty Tun, between *Briſtol* and *London.*

With the Reſults

LONDON,

Printed by *G. Dawſon*, 1656.

To his Highneſs,

OLIVER,

Lord PROTECTOR of the Commonwealth of *England*, *Scotland*, and *Ireland*, and the Dominions thereto belonging.

May it pleaſe your Highneſs,

ALthough this following Deſign be ſet forth both plain in ſpeech, and unpoliſhed for eloquence (my Genius *having not aſſumed the one, nor my endeavours in Literature attained the other) not for want of deſire, but ability to perform it: Yet notwithſtanding I beſeech your Highneſs favour to make the beſt Conſtruction of it, which here I moſt humbly preſent to your Highneſs, under whoſe wing I fly for protection and aſſiſtance, which otherwiſe will be an* Embryo *or* Abortive *never to receive life, if not animated by your powerful hand.*

Where-

Wherefore in all humility, I do make this Addreſs unto your Highneſs, by the great luſtre owned to your Name from all parts of Europe, *your Conqueſt of the* Seas *making your Highneſs receive famous and renowned Courtſhip from all Princes; All Lands being ambitious of our friendſhip, in Contemplation of divine Providence thus advancing you and your affairs: And as your Highneſs is thus eſteem'd by all Forraign Nations for your happy atchievements, ſo I the humbleſt of your ſervants, am deſirous, by preſenting this, which is the firſt Domeſtick ſervice, to your Highneſs Conſideration, to make you as popular at home as you are abroad, that all may ſee your aims are no other than the true advancement of the publick Good of this People, now under your Highneſs Government; the continuance whereof ſhall have the daily prayers of him, that, as in duty bound, remains*

Your Highneſs,
though unworthy, yet moſt
humble and faithful Servant,

July the 9.
1655.

Francis Mathew.

If your Highneſs approve of this Overture preſented, and be pleaſed to Command my Attendance on the Lords of your Highneſs moſt Honorable Privy-Council, I ſhall be ready to give them further Satisfaction herein, for the perfecting this Deſign, and removing all difficulties.

Of

TO THE RIGHT HONORABLE, THE HIGH-COURT OF PARLIAMENT

for the COMMON-WEALTH, of *England*, *Scotland*, and *Ireland*, &c.

MAy it pleaſe this Honorable Houſe, to reflect upon the Dedications of theſe two great Deſigns, ſo apparently beneficial to this Common-wealth, & your Honors will perceive they have been already preſented to the gracious hands of

his Highneſs my *Lord Protector*; what acceptance they found, what encouragements they received from his deep Wiſdom's approbation, and what authority his Highneſs gave me to Survey them, I will not make my ſelf the Relator, who may be thought partial to mine own productions, upon which I muſt acknowledge, to have ſpent much time, much labour, and great expence; and this onely out of my zeal to ſerve my Country.

Now this Honorable Houſe being Aſſembled in Parliament, I thought it my duty to offer up the ſame Deſigns to your deep and mature judgments, where if they paſs with the like approbation, I ſhall be an humble Sutor to this Honorable Houſe; for the greater encouragement of theſe Deſigns, to have them both Enacted, as things judged by this Supream Council of the whole Common-wealth, beneficial to the People, and worthy the putting in Execution: ſo was that late and happy Navigation, now opened between *London* and *Gildford*, *by a Powerful Act of Parliament*, firſt obtained.

I have gone in both theſe Deſigns, (as to the

the charge) the neereſt way I could, that being the uſual oppoſer of all ſuch publick Enterprizes. As in the *Mediterranean* Paſſage between *London* and *Briſtol*, I have onely ſet down the uſe thereof for the ſeven Winter Months, in which time our Rivers are ſwelled, and our High-wayes, not practicable for Carriages; although (with increaſe of charge) I could ſo let in Rivers into that Navigable Paſſage, as the Channel ſhould ſerve to carry Boats all the year long; but I was nice in the increaſe of charge; and withal, I muſt confeſs I had a compaſſionate eye upon the poor Waggoners, who in the Summer time, when our High-wayes were pleaſant, ſhould not have wanted employment, at leſt between *Calne* and *London*.

And although in both theſe Deſigns I have nominated Billanders of 30 Tun only, I intend to raiſe them to 40 Tun, which loaden ſhall draw no more Water than the former, and withal much leſſen the number of the Billanders. And whereas in my Book preſented formerly to his Highneſs, I conceived the Land that lies between the *Avon* and the *Iſis*, to have been between four or five miles, now upon my laſt Survey, up-

That is, three foot & half water.

on Commiſsion from his Highneſs, I found it (upon exact meaſure by Chain) not to be full three miles, and all upon ground very fit to be wrought upon, and a Spring to run in the middle of it, which falleth on the one ſide to *London*, on the other to *Briſtol*.

My ambition is, to Crown theſe two Inland Navigations by uniting them ; and in my laſt Survey upon this Subject , I conceived more hopes thereof, than ever ; yet ſome difficulties remain, which if I can overcome, as I am confident I ſhall , I intend to place our Citie of *London*, the Queen of Trade, as a pretious Diamond in the middle of this golden Ring, making her the ſole Empreſſe of all this our Inland and Circular Commerce, from one end of the Land to the other.

May it pleaſe your Honors ,

Theſe are my aims , theſe are my intentions in order to theſe two Deſigns , which I hope through Gods aſsiſtance, and yours, to bring it to perfection , laying all my endeavours at the feet of this Honorable Houſe, as,

Your Honors moſt humble,
and moſt devoted Servant,

The firſt day of *January*,
Anno Dom. 1656.

Francis Mathew.

Of the Opening of Rivers for Navigation, &c.

IN theſe *Papers* we are not to reflect upon this Iſland, as capable of ſuch Waterings as the flat Netherlands, whoſe Benefits may ſeem to allure us to the like Induſtry; Nevertheleſs *Englands* fair Valleys, and rich In-lets, through which many noble Rivers inſinuate themſelves, might, with the imitation of the induſtrious Netherlander, be made in many places docible of Navigation, to the ineſtimable comfort, ſatisfaction, eaſe, and profit of the publick, eſpecially during the ſeven (which we call) Winter-months, when Waters abound in our Rivers, and the Sea-coaſts ſo dangerous for Navigation: but with more charge Navigation may be maintained all the whole year, upon many of our Rivers.

The Objections of the differences of the Soyl, muſt not deterr us from ſo advantagious an enter-

prize, there wanting thereunto nothing but a *Reſolution of the powerful Undertaker.*

And ſince that word *Undertaker* is fallen from my Pen, it muſt paſs for a principle with me, That ſuch great and publick Works are not to be attempted by private men, or any particular Corporation, But moſt fit it were, that the *State* it ſelf ſhould be the ſole Undertaker, performing all at its own proper charge; and ſo may juſtly ſettle upon every ſuch Paſſage, *a Revenue to the Common-wealth for ever.*

But before any particular Work in this kinde be Reſolved upon, the Expence is to be weighed, with the Benefits to the publick; and theſe laid in equal balance, it will ſoon appear, Whether that one particular Deſign, will be profitable or not.

To clear this, a ſuppoſed Inſtance may be made in the Citizens of the noble City of *Salisbury*, as humbly making ſuit, That their *Avon* falling into the Sea at *Chriſtchurch*, might be opened to ſmall flat-bottom Veſſels, Billanders of 30 Tun, which Loaden, draw only three foot and a half Water; and this as well for the Sea, and its Commodities to be imported, as for the eaſier carrying down the Fruits of *Mendip*-Hills, and of all that part of the Weſt, to all thoſe parts below, which ſtand in ſo much need thereof.

The Charge muſt be looked into with the Profits: and though the Expence might ſeem great, yet muſt it not affright the publick *Undertaker*: For beſides the high Obligation this ſhould lay upon

on the City of *Salisbury*, and all those adjacent parts, for so great and everlasting a Gift, which to a *State* ought to be a prevalent motive: The *State* it self might also reflect upon the benefit not only to the people, but also to its own Revenue accruing by that Navigable passage, settled upon the Commonwealth for ever: It being a known maxime of State, that *by what the People, by the same the Government groweth rich.*

Moreover, it must be thought that the desires of the people in the instance before cited, were grounded upon apparent benefits conceived.

This Example may serve for all other such passages by water aimed at, the which ought to be made as apparently beneficial, as feazible: the Charge, as hath been said, being fit for *no Undertaker, but the State it self*: and the more such Navigable passages should Meander and winde within the Land, still would the benefit more and more arise.

Rivers may be compared to States-men sent abroad; they are never out of their way: so they pass by great Cities, Marts, Courts of Princes, Armies, Leaguers, Diets, and the like Theaters of Action, which still contribute to the increase of their Observation; So Navigable Rivers, the more places of Note they pass by, the more they take up, or bring; still gleaning one Commodity or other from the Soyl they pass through, and are supplied by every Town they touch at with imployment

The Benefites which will evidently arise by opening of such Rivers in this Common-wealth

Bacon *in his Natural History calleth these the richest Mines above ground.*

as shall be found beneficially capable of Navigation, are numerous and great; of which some few we will her touch.

By this industry, as it increaseth, will be raised many thousand of Watermen, fit at any time to be taken into the service *of the State*, and what waterman will not think himself highly advanced, to come out of a River into the Sea; out of a *Bilander into a man of War*, whose constant pay will be far greater, and whose imployment will be of much more credit, and carry it with more hope of preferment. Hence also many thousands of Horse, now only used for Packs and Burthens, would be spared, & our Studderies more capable for Warlike service, and the feeding of small Tits imployed upon improvable stocks.

The facility of Commerce from one place to another, and the cheapness of transportation of Commodities, without so much grinding and plowing up our high-wayes, which maketh them now in many places so impassable.

You shall see Western waggons, which they call Plows, carry forty hundred weight; insomuch as between *Bristol* and *Marlborough*, they have been enforced at a Hill they call *Bagdown-hill*, to put twenty Beasts, Horse and Oxen, to draw it up: This great abuse, by this means would be taken away, by keeping our High-wayes pleasant; and withal, by this transportation of Commodities by Rivers, the price of Commodities would fall.

The Imposition, though easie, laid upon every such Navigable passage, would, as Rivers by degrees are opened, amount to a fair revenue, without

any

any grievance at all to the people, but rather with much comfort, as it is imbraced in other Countries, where they cannot live withont the help of theſe Billanders, paſſing and repaſſing daily from Town to Town, from Market to Market, and from Coaſt to Coaſt; Theſe are onely ſome few of ſo many benefits, which will reſult from the opening of our Rivers.

General Obſervations upon all Rivers, as they are thought fit to be made Navigable.

TO riſe as high in opening the ſaid Rivers as they ſhal be found feazible; there to make a Wharf, Magazine, or Warehouſe for all ſuch Commodities as are uſeful to thoſe parts of the Country, both for Trade in Merchandizing, & ſervice in time of War, with far greater expedition.

If any other River, practicable for Boats, lye neer the head, or ſide of the ſaid River, and that the ground favour the opening of a ſtill River to be drawn between them, then to joyn them with Saſſes, *alias* Locks, or otherwiſe. But ſhould the ground be repugnant, then a fair ſtone Cawſey, not exceeding one little daies journey for Horſe, or Carts, to be raiſed between the ſaid Rivers. Where the Navigation ends, a Wharf, or Magazine to be made as aforeſaid, if theſe reach from Sea to Sea, not otherwiſe. For the example of Cawſeys, let the head of *Foy* River, & that of *Padſton* in *Cornwall* be examined, for a Cawſey to be made between them.

By the like induſtry, many Mediterranen paſſages

See Raſtal *at large in his Havens & Rivers upon the 67 of* Eliz.

Let the head of the Avon wch falleth down from Rugby *to* Warwick, *and ſo into the Severne, be examined with the* Welland, *which riſeth neer to the head of the Avon, & falleth down to* Stanford, *and ſo through the Iſle of* Ely, *into the Sea.*

Which would revive that County with imployment.

ges by Water, with the help of ſuch Cawſeys, would be found from one Sea to the other, and not to have the old Channel of any River to be forſaken to gain a ſhorter paſſage. For, as hath been ſaid, Rivers are never out of their way; and upon theſe Navigable paſſages, our chief Manufactures ſhould be ſet up, for the Commoditie of traſportation.

Object. Theſe great Works alwaies bring forth great difficulties, though the benefit be never ſo apparent.

Anſw. Can any thing of this nature ſeem difficult *to a State reſolved to do good to its people?* Difficulties are the boundaries of narrow hearts, ſuch is not to be the heart *of a State*, which ſhould moſt rejoyce in difficult things, in the overcoming of which, ſo much honor is atchieved.

A buſineſs well pondered and ſeriouſly reſolved on, by a powerful *Undertaker*, is carried like the World upon *Atlas* ſhoulders, without groaning.

Object. 2. Moſt of our Rivers in the Summer time will want water to carry a Boat, even our Thames ſometimes is ſo ſhallow, as our Barges are gravelled.

Anſw. Such Rivers as ſhall be judged fit for Navigation muſt not be debarred the Contribution which other Springs, Brooks, and Rivers would give them; wherefore all ſuch Streams, great or ſmall, which would willingly fall into our ſaid Rivers deſigned for Navigation, ought to be free, and not to be bound up with Wears, Sluces, Pens for Mills, and the like *impreſtures*, which keep up, ſtop, and divert the Waters from their natural Courſe, and fall into thoſe Navigable Rivers. Thoſe

Theſe expreſly forbidden in Magna Charta, *cap.* 2. *See* Henr. primi, *cap.* 12. *Alſo* Walſingham, *in* Edw. 3 *And* Sir John Davis *in his* Iriſh *Reports.*

Thoſe Mills either the State ſhould buy of the Owners of them, and erect for every Water-mill three Horſe-mills, for the neceſſity of the Country adjoyning, or ſo agree with the Owners of them, that they pulling up their Water-mills and ſuch apparent purpreſtures for the free Courſe of Waters, ſhould themſelves ſet up the ſaid Horſe-mills for the uſe of the Country in places more convenient, then to go in ſome place a mile or two to a Water-mill, which asketh a daies imployment for a man and Horſe.

And truly, if the conſumption of our Timberhold on but ſome few yeers more, there will be none left to build either Water-mil, or Wind-mil, they requiring the beſt and ſtrongeſt Timber we have: ſo that of neceſſity we ſhal be driven to ſet up theſe Horſe-mills, which are built with our meaneſt Wood, our Oak being little enough to maintain our Shipping, were it never ſo well preſerved hereafter.

The *Avon* of *Briſtol* made Navigable as high as *Malmsbury* and *Calne*, with the Profits for tranſportation of Coals, and other Commodities.

Which alſo may with facility produce a Mediterranean paſſage by Water from *Briſtol* to *London*.

The Coal-pits in *Kings-wood* neer *Briſtol*, and if they ſuffice not, thoſe Colliaries upon the Severn ſide, to furniſh that Country ſo much deſtitute of Fuel up to *Malmsbury* and *Calne*, in this manner may be looked upon: This River made Navigable for Billanders, flat-bottomed Boats of 30 Tun, which

which draw loaden but three foot and an half Water. The Work being feazible at a far leſs Charge than the yeerly profits will come to; theſe Colliaries are to be dealt with to bring Coal either out of *Kings-wood*, or from the Severn, to a place aſſigned them for Wharfage, they affording the *Newcaſtle* Chaldron at the ſaid Wharf for 10 *s.* 2 *d.* being now ſold at the Pitts at one penny the *London* Buſhel.

Theſe of Kingſwood are upon the States *own ſoyl.*

Thoſe Colliaries in *Wales*, the State may take into its own hands, giving the Owners yeerly more for them than they now make of them.

Fewer will ſuffice ſhould the Billanders carry 40 Chaldron

Theſe Colliaries ſetled, and the River of *Briſtol* made Navigable, *the State* to licence 300 of theſe Billanders, each bearing 30 Chaldron (onely *London* meaſure) and theſe to bring Coal from the Wharf up the ſaid River as high as *Malmsbury* and *Calne*, paying 10 *s.* 2 *d.* the *London* Chaldron at the Wharfs, and 5 *s.* for every ſuch Chaldron for the paſſage up the River, and ſell them at *Malmsbury* and *Calne* for 18 *s.* 2 *d.* the *London* Chaldron, where now they are ſold for much more.

There ſold at 18s. 2 d. London Chaldron. That is, 6 d. the Buſhel.

The Owner, or Merchant of the Wharf having for every ſuch *London* Chaldron delivered, 10 *s.* 2 *d.* The *State* for the paſſage of every ſuch Chaldron 5 *s.*

The Billander for his Fraight for every ſuch Chaldron, 3 *s.*

Surplus of meaſure to belong to the State.

The difference of *Newcaſtle* and *London* meaſure in the Chaldron, being the third Coal, two *Newcaſtle* Chaldron making three of *London: The ſurplus of meaſure ſhould be given to the State*, to be landed neer the ſaid Wharfs, upon a Wharf called the *States Wharf*. The

The other Wharfs to be divided into six; every Wharf having its Squadron of 50 Billanders, belonging to the Owners and Merchants of the several Wharfs; which Wharfs may have their names from the Colours they shall bear.

These Wharfs to be kept by the Owners of the Coal which lieth upon them, who are to receive (as hath been said) 10 *s.* 2 *d.* for every Chaldron given out, *London* measure.

These Billanders are to sayl up the River, every Squadron by its self, having each his Admiral, and Rear-Admiral, carrying their Flags of proper Colours, none of the said Squadron sayling before his Admiral, nor any behind his Rear-Admiral; and this to prevent disorder as they pass through the Country.

Thus we may play upon Rivers.

They are so to discharge both the duties at the Wharf, and the duties for the Passage, as to make no stay at all.

Every Admiral at the discharge of the duties for his whole Squadron (for he is to undertake it) is to receive a Ticket for his free passage through the River, without which they are not to pass the Block-house or Fort erected for preserving the *States revenue*, if any mutiny should arise.

These Wharfs aforesaid, are to have correspondent Wharfs at *Malmsbury*, and *Calne*, and to be regulated as the former, one Squadron not unlading at anothers Wharf; where each Billander is to receive for its fraight of 30 Chaldrons, 4 *l.* 10 *s.* every voyage; and two of these voyages may well be made in one month.

The Wharfs paying the Billanders their Salary,

and keeping the Coal for all ſuch as fetch it there at 18 *s.* 2 *d.* the *London* Chaldron.

As concerning the Coal before mentioned to be laid upon the *States Wharf*, being the third Coal gained in the *Newcaſtle* meaſure, that alſo is to have at *Malmsbury* and *Calne* a Wharf called the *States Wharf*, correſponding to the former, where that ſurplus of meaſure ſhould be laid, and kept for the benefit of the *State*, in thankfulneſs for that great charge in making the River thus Navigable, for the benefit of the Country: And here both the benefit of the Coal, and Paſſage, cometh to *the State* (the fraight of the Billander onely excepted.)

The ground-work being thus laid, the Profits are theſe:

	l.	*s.*	*d.*
Every Billander fraight with 30 *London* Chaldron for the Paſſage onely, Fruits to *the State* every voyage	7	10	0
Every Squadron of 50 of theſe Billanders, for Paſſage onely, fruits *to the State* every voyage	375	0	0
Every voyage of 300 Billanders for Paſſage onely, fruits *to the State*	2250	0	0

Surplus of Meaſure to the State *alone:*

	l.	*s.*	*d.*
Every ſuch Billander fraight with the Surplus of meaſure upon the third Coal, fruits *to the State*, both for Coal and Paſſage	22	10	0

Every

	l.	s.	d.
Every Squadron of 50 Billanders, every voyage fraight as aforesaid, fruits *to the State* ———	1125	0	0
Every voyage of those 300 Billanders fraight as aforesaid, fruits to *the State* ———	6750	0	0
These in general from *Bristol* to *Malmsbury*, & *Calne*, making two voyages every month in 7 months, carry 126000 Chaldron, which fruits to the *State* in these 7 months, in this sole Commoditie of Coal, though much more Coal will be carried ———	l. 525	0	0

The Coal as they are first brought to the Wharfs should be so ordered, as the third Coal be duly carried to the Wharf of the State.

As to clear what hath been said, If 20 Chaldron *Newcastle* measure be brought from the Pits to the Wharfs, they are to be divided into 30 Chaldron *London* measure, of which the *State* is to have ten Chaldron laid upon its Wharf, and so proportionably to all that are brought from the Pits to any Wharf, the third Coal being alwaies carried to the *States Wharf*. The Staple of Coal being thus setled for all that Country about *Malmsbury* and *Calne*, and Coal being sold there constantly for 18 *s.* 2 *d.* the *London* Chaldron to all that will fetch them, that is, at the price of 6 *d.* the *London* Bushel; No question is to be made, but that a marvelous great quantity will be thus vented, to the great blessing of the People, who now pay about *Calne* and *Malmsbury* not much under 12 *d.* the bushel, & commonly more, being carried by Horse from *Bristol*:

Should 50000 Chaldron only be thus yeerly vented, it is a great Revenue, and would in the very *Profits to the State* rise in this sole

	l.	*s.*	*d.*
Commoditie of Coal, unto - ——	20833	6	8
That is, for Passage —— ——	12500	0	0
And for the third Coal gained ---	8333	6	8

But there will be treble the quantity vented.

And no doubt *Bristol*, so great a place of Traffick, would make use of this River as high as *Calne* towards the Transportation of their Merchandize *from Bristol to London*, it being the worst and most Hilly part of the way, and lieth full in the passage to *London*.

	l.	*s.*	*d.*
A Billander of 30 Tun, laden with Merchandize from *Bristol* to *Calne*, taking but one Farthing *per* pound, fruits to the *State* every Voyage ——	62	10	0

It may well make two Voyages every Month.

This River being thus practised as high as *Malmsbury* and *Calne*, should our Seas be at any time infested with Enemy Fleets in such sort as without eminent danger, *London* and other parts of this Common-wealth, could not be served with *Coal* from *Newcastle* and *Sunderland*:

How facile a thing it were from *Malmsbury*, lying upon the said River, to open a passage for these Billanders of 30 Tun, which draw Water but three foot and half, loaden, into the River *Isis*, by *Creeklade* and *Letchlad*, and so into the *Thames*, all that Land-passage being not fully 3 miles (inviting the *Undertaker*) being very low, and practicable ground, most fit for the Design.

Were the Billanders to carry 40 chaldron, 250 of them would carry 10000 Chaldron at one Voyage.

This Passage opened, the proffits to the *State*, would rise to a vast Sum, and far greater then that of *Coal*.

By

By this means there would be a *Mediterranean* paſſage opened from *Briſtol* to *London* by Water.

Not only for the ſupply of much *Coal* in time of neceſſity, but for all other Commodities brought into *Briſtol*, which in time of Hoſtility *London* could not otherwiſe enjoy, but by exceſſive Rates for Land-carriages, or Convoyes by Sea : but by this Paſſage once opened, all Commodities may be brought from *Briſtol* to *London* (even at one Farthing *per* ponnd) we now paying all the Winter-time for carriage by Land between *London* and *Briſtol*, 4 *s. per cent.*

Our Forreign Vintage never permitting us to bring home Wines till the beginning of *November* when our Channel is very dangerous, the Merchant would be glad to ſecure his Voyage by this *Mediterranean* Paſſage by unloading his Wines at *Briſtol*, without any further hazard.

The whole Charge of this Navigable Paſſage would be paid with the proffits of the firſt year: And as for *Coal* for 2 *s.* more upon the *London* Chaldron for Fraight, they alſo this way would be brought to *London* at 20 *s.* 2 *d.* the Chaldron, *London* Chaldron. Howſoever great Caution ought to be uſed, that during times of Peace no *Coal* ſhould be brought to *London* this way, to the end our Shipping, which is much imployed in the Tranſportation of that Commodity, might ſtill be kept up, for the ſafety, benefit, and honour of this *State.*

It were good that the 2 *d.* upon every Chaldron were paid towards the defraying of the Salaries of Officers.

Officers upon the Wharfs, and towards the maintenance of the Paſſage yearly.

At *Cardiff*, the neareſt Colliary to *Briſtol*, that is upon the Severn, excellent *Scotiſh-Coals*, which alſo would drive a great Trade upon this Paſſage, being ſold by the Tun.

This Paſſage in time of Peace might be uſed for Tranſportation of Merchandize to *London*, and from *London* to *Briſtol*, only from the firſt of *October* to the firſt of *April*; partly not to obſtruct our Navigation by Sea, all the Summer-time, when the doubling of the Cape of *Cornwal* is not dangerous, nor our Coaſts ſo ſubject to ſtorms: And partly by reaſon of the *Avon*, and *Iſis*, and the *Thames* it ſelf in thoſe Winter-months will not want Water, which in the Summer they do, unleſs other Rivers be let into them, which cannot be done without more Charge: And for *Coal*, our Seas being not infeſted, none ſhould paſſe higher then *Malmsbury* and *Calne*, not to hinder, as hath been ſaid, our Navigation, for that Commodity by Sea, which muſt ſtill be endeavoured to be kept up to the full.

Now who ſhould be the *Undertaker* of this great Work, but *the State* it ſelf? it being too great an Expence for any private man or Corporation to lay out; and of too great a Profit for them to receive, being effected.

This to be obſerved well by the Cities of Bath *and* Briſtol, *leſt they labor in vain.*

Some endeavours have been uſed by that noble Patriot, Sir *John Harrington*, to make this River Navigable between *Briſtol* and the *Bath*, which Work I have ſeen: but the Deſign being too narrow for this our great Propoſal, it were in vain to

be

be again ſet upon, either by any private man, or the ſaid two Towns, unleſs they intend to make the River and their Saſſes ſo large as the River to carry Billanders of 30 Tun, or more.

I went down to ſee Sir *John Harringtons* intended Saſſe, ſome two miles below the *Bath*, and I found the Engineer to have much abuſed the noble Knight in his Work, making his Saſſe upon the very Dam of the River, which would have been a perpetual and forcible Enemy to his Work. Beſides, I found by Meaſuring his Saſſe, that it would contain but one Boat of 8 Tun: which narrow Deſign would no way have ſerved to this our *Mediterranean* Paſſage, but muſt have been again ript up and deſtroyed: The Saſſe it ſelf being to be otherwiſe placed, and made far larger, capable of a Boat of 30 or 40 Tun.

He who hath ſeen the Saſſe, between *Ipris* and *Vuerne* in *Flanders*, will confeſſe it a noble Work, and capable of Publick Service (which this I ſpoke of no way is) yet much is the memory of that noble Knight to be honoured, in ſhewing himſelf to his Ability, a publick man, labouring ſo much for the good of his Country.

Many Saſſes are to be made upon this River of *Avon*, it being ſo much a Falling-water, inſomuch it is now forced to be kept up with many Dams, every one of which muſt have his Saſſe, but not upon the Dam, but upon the ſide of it.

The Propoſer of this Paper *hath no other intereſt in this Deſign, then a true Patriot ought to have,*

Officers upon the Wharfs, and towards the maintenance of the Paſſage yearly.

At *Cardiff*, the neareſt Colliary to *Briſtol*, that is upon the Severn, excellent *Scotiſh-Coals*, which alſo would drive a great Trade upon this Paſſage, being ſold by the Tun.

This Paſſage in time of Peace might be uſed for Tranſportation of Merchandize to *London*, and from *London* to *Briſtol*, only from the firſt of *October* to the firſt of *April*; partly not to obſtruct our Navigation by Sea, all the Summer-time, when the doubling of the Cape of *Cornwal* is not dangerous, nor our Coaſts ſo ſubject to ſtorms: And partly by reaſon of the *Avon*, and *Iſis*, and the *Thames* it ſelf in thoſe Winter-months will not want Water, which in the Summer they do, unleſs other Rivers be let into them, which cannot be done without more Charge: And for *Coal*, our Seas being not infeſted, none ſhould paſſe higher then *Malmsbury* and *Calne*, not to hinder, as hath been ſaid, our Navigation, for that Commodity by Sea, which muſt ſtill be endeavoured to be kept up to the full.

Now who ſhould be the *Undertaker* of this great Work, but *the State* it ſelf? it being too great an Expence for any private man or Corporation to lay out; and of too great a Profit for them to receive, being effected.

This to be obſerved well by the Cities of Bath *and* Briſtol, *leſt they labor in vain.*

Some endeavours have been uſed by that noble Patriot, Sir *John Harrington*, to make this River Navigable between *Briſtol* and the *Bath*, which Work I have ſeen: but the Deſign being too narrow for this our great Propoſal, it were in vain to be

be again ſet upon, either by any private man, or the ſaid two Towns, unleſs they intend to make the River and their Saſſes ſo large as the River to carry Billanders of 30 Tun, or more.

I went down to ſee Sir *John Harringtons* intended Saſſe, ſome two miles below the *Bath*, and I found the Engineer to have much abuſed the noble Knight in his Work, making his Saſſe upon the very Dam of the River, which would have been a perpetual and forcible Enemy to his Work. Beſides, I found by Meaſuring his Saſſe, that it would contain but one Boat of 8 Tun: which narrow Deſign would no way have ſerved to this our *Mediterranean* Paſſage, but muſt have been again ript up and deſtroyed: The Saſſe it ſelf being to be otherwiſe placed, and made far larger, capable of a Boat of 30 or 40 Tun.

He who hath ſeen the Saſſe, between *Ipris* and *Vuerne* in *Flanders*, will confeſſe it a noble Work, and capable of Publick Service (which this I ſpoke of no way is) yet much is the memory of that noble Knight to be honoured, in ſhewing himſelf to his Ability, a publick man, labouring ſo much for the good of his Country.

Many Saſſes are to be made upon this River of *Avon*, it being ſo much a Falling-water, inſomuch it is now forced to be kept up with many Dams, every one of which muſt have his Saſſe, but not upon the Dam, but upon the ſide of it.

The Propoſer of this Paper *hath no other intereſt in this Deſign, then a true Patriot ought to have,*

have, a desire for the Publick good, to see it effected, and by it his Country served: And if he shall perceive it embraced, it will encourage him to offer up to the Publick Service of his Country other Improvements of greater Consequence.

FINIS.